

ply. Hence, a functional sensitive oral sphincter may be reconstructed even after resection of a large portion of the lip.

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Recent Advances in Maxillofacial Operations

THE MAJOR ADVANCES in maxillofacial surgical procedures for trauma in the past few years have resulted from progress in craniofacial operations. The exposure of the forehead, orbits, zygomatic arches, and upper maxilla and nose made possible via the bitemporal, coronal incision is incredible. Through such an exposure, acute deformities of the upper orbital and forehead area as well as comminuted fractures of the frontal sinus and glabella including "telacanthus" can be reduced and stabilized. The exposure for certain craniofacial separations is excellent. Bone grafting, which in general has been left to secondary procedures in the past, can often be completed so that secondary steps in reconstruction can be obviated. The approach to the upper orbit via the bitemporal incision and via the conjunctival approach to the lower orbit has the additional advantage of less obvious incisions. Similarly, such exposures can be used for late reconstructive procedures.

For congenital problems the most recent improvements in craniofacial surgical procedures have been in reconstruction of certain anterior skull and supraorbital problems in neonates—in general, operation being carried out when the patient is between three and six months of age. At this time there is rapid skull development secondary to growth of the brain. This brain growth can be used to help obtain better skull contour, particularly in cases of plagiocephaly (unilateral cranio-synostosis). Such surgery in Crouzon and Apert syndromes has been less encouraging. New methods for forehead reconstruction have been carried out not only at these early stages but also in the teenage years. A recent advance in forehead osteotomies by Marchac in Paris is very encouraging. He has transposed segments of the anterior skull to create supraorbital rims and better shaped foreheads. Through the use of prefabricated methyl methacrylate im-

plants, we have been able to develop excellent anterior skull contour with protection of the orbits and with minimal morbidity and risk.

There is a great deal of concern by physicians about malpractice from orbital exploration in cases of "blow-out" fracture. In the publications of Putterman, the complications, particularly blindness, reported by him from orbital exploration have caused confusion. This was put into better perspective by the presentation of John Converse at the 1977 annual meeting of the American Society of Plastic and Reconstructive Surgeons in San Francisco. He reported that in his and Byron Smith's series of more than 500 cases of orbital explorations for blow-out fractures there were no cases of blindness. (Other less severe complications could be minimized by careful surgical manipulation and avoidance of excessive retraction.) To generalize and state that in no cases of blow-out fracture should exploration be done is as unacceptable as saying that exploration should be done in all cases. The need for individual treatment of each patient was stressed. Converse pointed out again that, contrary to the opinion of Putterman, the late reconstruction of the enophthalmic orbit is a most difficult and disappointing problem. Close collaboration between plastic surgeons and ophthalmologists is encouraged for the benefit of all, particularly patients.

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Microvascular Reconstruction

WITH INCREASED PROFICIENCY in the techniques of microvascular anastomosis, and success rates greater than 90 percent, the application of this specialized form of surgical operation has extended into the treatment of acute injuries and the reconstruction of posttraumatic and postsurgical deformities.

Patients sustaining traumatic amputation of limbs or digits can be rapidly transferred to centers where microvascular surgical teams are available. The amputated parts are transported in iced saline solutions with the patient. Reimplantation is effected by microdissection of 1.0 mm in diameter donor and recipient vessels using binocular loupes or the operating microscope. Microvascu-